AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (previously presented) A method of emulating a handheld video gamedevice of the type that runs video game software to present interactive displays of animated video game play in response to user inputs, the method comprising:

launching and executing a video game device emulator program on a target computing device different from said handheld video game device, said target computing device being capable of displaying graphical information on a target computing device display, said target computing device having read/write memory and receiving user inputs, said launched and executing video game device emulator program controlling said target computing device to at least in part emulate said handheld video game device so as to at least in part enable said target computing device to run said video game software and present interactive displays of said animated video game play in response to user inputs to said target computing platform;

modeling at least some display timing activities of said handheld video game device on said target computing device;

processing, with said emulator program executing on said target computing device, a video game software image capable of being executed on said handheld video game device; and

generating a real time interactive video game presentation on said target computing device display at least in part in response to said processed video game software image and said modeled display timing activities,

wherein the target computing device display has a predetermined display area,

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and said video game device emulator program displays at least a portion of said real time interactive video game presentation on a subset of said predetermined display area,

wherein said video game software image comprises multiple ROM pages and said method further includes said emulator program allocating ROM pages in said target computing device read/write memory and duplicating at least a portion of said allocated ROM pages.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (currently amended) An emulator that emulates in software, at least a portion of handheld video game platform hardware, said emulator comprising:

a target platform different from said handheld video game platform hardware, said target platform including a processor that loads and executes emulation software, parses and processes a video game software image capable of being executed on said handheld video game platform hardware, and generates an audio-visual real time interactive presentation in response to said image,

wherein the target platform comprises a display unit having a predetermined display area, and said target platform under control of said emulation software displays the visual part of said audio visual presentation on a subset of said display unit predetermined display area,

wherein said video game software image comprises multiple ROM pages and ~~said method further includes~~ said ~~emulation software~~ emulator ~~allocating~~ allocates ROM pages in target platform read/write memory and ~~duplicating~~duplicates at least a portion of said allocated ROM pages to facilitate paging operations.

15. (Canceled)

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16. (Canceled)

17 (previously presented). The method of claim 6 wherein said target computing device display comprises a liquid crystal display.

18 (previously presented). The method of claim 6 wherein said modeling comprises modeling a virtual liquid crystal display controller state machine to maintain real time synchronization with events as they would occur on said handheld video game device.

19 (previously presented). The method of claim 6 further including using hardware-assisted BLIT memory transfer operations to efficiently transfer graphics information.

20 (previously presented). The method of claim 6 further including using a pre-computed translation table that translates native platform graphics character formats.

21 (previously presented). The method of claim 6 further including emulating registers and hardware-based memory structures within the handheld video game device in random access memory under software control.

22 (previously presented). The method of claim 6 further including using a jump table to efficiently parse incoming binary instruction formats.

23 (previously presented). The method of claim 6 further including using a page table to control memory access by remapping memory access instructions into different memory locations and/or function calls.

24 (previously presented). The method of claim 6 further including providing a read only memory protection function to eliminate overwriting of read only memory.

25 (previously presented). The method of claim 6 wherein said modeling includes using a state machine defining search, transfer, horizontal blank and vertical blank states.

26 (previously presented). The method of claim 25 further including providing a cycle timer to determine when a modeled state has expired and transition to a new state is desired.

27 (previously presented). The method of claim 6 further including selectively skipping frames while maintaining execution of instructions to maintain state information while minimizing game play slowdowns.

28 (previously presented). The method of claim 6 further including performing no-operation look-ahead to avoid wasting processing time in no-operation loops.

29 (previously presented). The method of claim 6 further including modeling said handheld video game device native instruction registers as a union of byte, word and long register formats.

30 (previously presented). The method of claim 6 further including modeling handheld video game device native instruction CPU flags to allow efficient updating after operations are performed by the target computing device.

31 (previously presented). The method of claim 6 further including mapping the handheld video game device emulated program counter into at least one target computing device microprocessor general purpose register.

32 (previously presented). The method of claim 6 further including providing an adaptable input controller emulator to receive user inputs from a variety of different user input devices.

33 (previously presented). The method of claim 6 further including using screen memory buffers larger than said predetermined display area to increase paging efficiency by eliminating clipping calculations and using hardware Bitblit to transfer a subset of said memory buffer to display video memory.

34 (previously presented). The method of claim 6 wherein said target computing device comprises an airline seat back controller.

35. (previously presented) The method of claim 6 wherein said target computing device comprises a personal digital assistant (PDA).

36. (previously presented) The method of claim 6 wherein said target computing device comprises a handheld portable computing device.

37 (New). A storage device storing emulation software for emulating at least a portion of the functionality of handheld video game platform hardware on a portable handheld battery-operated computing device different from said handheld video game

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platform hardware, said portable handheld battery-operated computing device of the type including a display unit having a predetermined display area and further including a processor that loads and executes said stored emulation software to enable video game play on said portable handheld battery-operated computing device, said storage device storing:

first emulation program instructions that process a video game software image capable of being executed on said handheld video game platform hardware, said video game software image comprising multiple ROM pages;

second emulation program instructions that generate an audio-visual real time interactive presentation at least in part in response to said video game software image, said second emulation program instructions displaying an animated character visual part of said audio-visual presentation on a subset of said display unit predetermined display area; and

third emulation program instructions that allocate ROM pages in target platform read/write memory and duplicate at least a portion of said allocated ROM pages to facilitate paging operations.

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